



**UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/136,367	08/19/98	CONRAD	W BERE. 0007

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EXAMINER REIFSNYDER, D
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ART. UNIT. 1723	PAPER NUMBER 6
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DATE MAILED: 10/07/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/136,367

Applicant(s)  
Conrad et al.

Examiner  
David A. Reifsnyder

Group Art Unit  
1723

☒ Responsive to communication(s) filed on Apr 14, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-69 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-69 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4 and 5

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Drawings*

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

### *Specification*

2. The following is a quotation of 37 CFR 1.71(a):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

The specification is objected to under 37 CFR 1.71(a) for failing how to adequately teach how to make and/or use the invention.

The specification is directed to cyclone separator which can be used to separate various fluids. Some of the claims are directed to a cyclone separator in combination with a dirt filter for a vacuum cleaner e.g. claims 20 and 48; an air inlet for turbo machinery e.g. claims 21 and 49; and a treating apparatus upstream of a pump e.g. claims 22-24 and 50-52. While the specification vaguely discloses that the cyclone can be in combination with a dirt filter for a vacuum cleaner, an air inlet for turbo machinery, or a treating apparatus upstream of a pump, the specification does not adequately disclose a cyclone being in combination with a dirt filter for a vacuum cleaner, an air inlet for turbo machinery, or a treating apparatus upstream of a pump.

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***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the dirt filter for a vacuum cleaner e.g. claims 20 and 28; an air inlet for turbo machinery e.g. claims 21 and 49; and a treating apparatus upstream of a pump e.g. claims 22-24 and 48-52 . must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 20-24 and 48-52 are rejected for the reasons given above, in the objections under 37 CFR 1.71(a) .

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims and 17-19; since claims 17-19 fail to disclose any apparatus structure, it is vague and indefinite as to how claims and claims 17-19 further limit claim 1. To correct the problem for claims 17-19 claim ---The separator as claimed in claim 1 constructed and arranged so that the fluid---

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-13, 25-44, 53-64 and 67-69 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Stockford et al. Furthermore, Stockford does disclose a non-baffled inner wall .  
(col. 2, lines 63 to col. 3, lines 57 and col. 4, lines 35-38)

9. Claims 1-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Bielefeldt

Regarding claims Bielefeldt discloses trumpet shaped suction tubes 35 the suction tubes 35 including all of the structure of the instantly claimed non-frusto conical separator, (col. 2, lines 41-54) the trumpet shaped suction tubes 35 being inside a separator 50, the separator 50

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including a collecting chamber 80. Furthermore, the separator 50 can be in series with different separators e.g. filters. (col. 10, lines 33-34)

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was

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made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

13. Claim 20-24 and 48-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stockford et al.

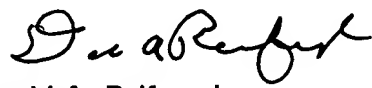
Regarding claim 20-24 and 48-52; Stockford et al. discloses the claimed cyclone except for it being in series with various devices e.g. filters. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have connected Stockford et al's cyclone to filters since it is well known to have cyclones in series with filters.

### *Conclusion*

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Reifsnyder whose telephone number is (703) 308-0456. The examiner can normally be reached on Monday-Friday from 9:00AM - 5:00PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for this Group is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

  
David A. Reifsnyder  
Primary Examiner  
Art Unit 1723

DAR  
September 30, 1999